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LITHUANIA, 1939-40

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A. The Loss of Klaipeda

1. In March 1939, Nazi Germany reoccupied the Klaipeda area without meeting opposition and proclaimed it part of the third Reich. Lithuania lost 2,842 sq. km. of territory and 150,000 people.⁽¹⁾ The loss of the ice-free port of Klaipeda with its Nemunas River outlet was as important as the loss of the area and made Lithuania dependent upon Germany for access to the port through which most of its exports flowed (Germany left a small free zone for Lithuanian exports to pass through). The loss of the huge investments made by the Lithuanian Government in the Klaipeda area was also severe.
2. The Klaipeda area included about 47,000 hectares of forest divided into three forest master districts which had been continuously managed according to the German style of forestry. The Lithuanian forestry regulations had not been applied in them and the loss of Klaipeda, therefore, did not affect Lithuanian forestry practices. Actual loss (over 55% of the wood industry) included 15 saw mills (987 employees), 2 plywood shops (604 employees), one paper mill (734 employees), one match shop (139 employees), and 16 other establishments (127 employees).⁽²⁾ These losses included most of Lithuania's heavy (export) wood industry. All that remained were the few large saw mills in Kaunas and the small local industries. The wood and lumber stock on hand in Klaipeda was left to the Lithuanian Government and it was permitted to sell it. The bulk of Lithuanian wood exports immediately changed from manufactured goods to rough timber (primarily pulpwood for the cellulose plants in Tilsit and Klaipeda).

B. The Annexation of Vilno

1. (a) After the defeat and partition of Poland between Germany and the USSR, Lithuania received a portion of the Vovyevodship of Vilno from the USSR. This was the result of the Soviet Lithuanian Pact of 10 October, 1939. The area received included 6,655.5 sq. km. and 424,700 people.⁽³⁾ The city of Vilno alone had 209,442 people. The Lithuanian administrative system was introduced. The Lithuanian territory now had 59,731 sq. km. and 3,032,864 people. The newly annexed portion was heavily overpopulated, its soils were very poor (sandy and swampy), the standard of living was low, and the general economic situation was poor. The one month Soviet occupation had stripped the vital resources of the area pretty thoroughly, including deportation of skilled manpower and intellectuals to Siberia.
- (b) Lithuania immediately applied its Land Reform Act to Vilno, and all forests over 25 hectares were seized by the state. 49,616 hectares (of a total of 64,494) were expropriated from 253 estates (of a total of 358), 77% of the total. Peasant possessions were left untouched and former Polish forests were simply incorporated into the Lithuanian State Forest System. Land use in the area in 1831 had been:

Agricultural land

arable land	-	1,065,000	hectares	(39.1%)
gardens & orchards	-	53,000	"	(1.9%)
meadows	-	538,000	"	(12.4%)
pasture	-	297,000	"	(10.9%)
forests	-	525,000	"	(19.3%)
other uses	-	448,000	"	(16.4%)
Total Area	-	2,726,000	"	100.0% ⁽⁴⁾

- (c) The forest areas of the portion of Vilno given to Lithuania in 1939 included 142,340 hectares, or 21.2% of this total, 59,714 hectares (42%) were state forests and 82,626 (58%) were private forest.(5) The ranges were distributed by size as follows:

Less than 30 hectares	-	9,160	hectares
30-500 hectares	81,026	"	
500 & up hectares	52,154	"	
	142,340	"	

The largest areas of solid forest were south and north of the city of Vilno. They were largely state forests.

- (d) The Vilno forests included:

Type	State Forests		Private Forests	
	Hectares	%	Hectares	%
Pine	37,200	62	52,300	63
Spruce	8,400	14	13,300	16
Oak	600	1		
Birch	9,000	16	11,000	12
Northern Alder	3,914	7	6,126	9
	59,714	100	82,626	100(6)

- (e) The expropriated private forests were divided by age as follows:

Type	Young		Middle Age		Ripe		Total	%
	Hectares	%	Hectares	%	Hectares	%		
Pine	16,866.8	52.0	12,219.7	38	3,027.7	10	32,114.2	100
Spruce	2,315.2	37.3	2,175.3	35.1	1,698.5	26.6	6,187.0	100
Birch								
Alder & Aspen	2,303.7	41.2	1,578.4	33.0	899.8	25.8	4,781.9	100
Other	20.0	12	58.2	35	83.4	53	1,616	100
Total	21,515.7		16,031.6		5,709.4		43,246.7	(7)

- (f) The State forests were in better shape. They yielded an estimated 210,000 festmeters of timber each year.(8) Polish sources placed it even higher, 300,000 festmeters per year, or three per hectare.(9) The private forest yield was about 1-1.5 festmeters per hectare. Many of the Vilno forests had been devastated by fire during World War I, grew on poor soils, and had been decimated by timber thefts from 1918-1919.(10) Therefore, they were quite light in growth. Exploitation of three festmeters per hectare was too heavy. From 1937-1939, an annual average of 211,000 festmeters were cut on 767 hectares, or 2.75 festmeters per hectare. In general, the Vilno forests were similar to those in Lithuania.

2. Status of Polish Forestry and Forestry in the Vilno Area

- (a) The Vilno forests had been managed by the Forest Directory in Warsaw, a part of the Polish Ministry of Agriculture and Land Reform. The Directory included a Forestry Research Institute; divisions of wood production, by-products, use and realization, and organization and control; and judicial, financial, technical and employment bureaus. There were nine territorial units, among them the Vilno territory. Each had an administrative system similar, though on a smaller scale, to the main Directory. The Vilno area, in addition to the divisions and bureaus mentioned above, had a Fisheries Bureau and a Division of Forest Protection. The forestry offices of the Vilno area employed 129 civil

service and 97 temporary employees.⁽¹¹⁾ There were 41 forest master districts in the whole Vilno area and 198 forest ranger districts. Each of the latter had 3-5 guards.⁽¹²⁾ A forest master district consisted of 11-12,000 hectares; a forest ranger district 2,300-2,500 hectares; and a forest guard's territory 500-600 hectares.

- (b) All officials of the Polish Forestry Service down through the forest masters were college educated professionals. Some of the forest rangers had had professional training and all were given periodic training courses. In general, the level of education and forestry was higher than that in Lithuania or Russia. All of the forest guards were literate. Most had elementary school educations and additional special forestry training. The Polish Forestry Directory demanded more of its personnel than the Lithuanian Forestry Department, and maintained closer control over them. Each territorial office had a special representative of the state control department to watch over its activities.
- (c) The Polish foresters were paid much the same as the Lithuanians. The supplements to their pay were about the same, but their housing was better. Every forest guard had a farmstead and many of the buildings were new and had sanitary facilities. The homes of the rangers and forest masters were somewhat better than those of the guards and some of the newer ones included water pumps and septic tanks. In spite of the improvement over the Lithuanian standard, however, Polish foresters were poorly paid and corruption was a problem, just as it was in Lithuania.
- (d) Like other states formed after World War I, Poland included within its boundaries portions of many former nations. Each portion was subject to its own laws. In areas which had long been Polish, the code of Napoleon was in use but the eastern areas were under Russian laws; the southern under Austrian; and the northwest, under Prussian. The Polish areas which had been under Russian rule before World War I had for a long while (since 1795) retained Polish customs and administration. After 1890, however, the Russians had started to replace the Poles with Russians and had introduced the Russian Forestry Code. By World War I, the change-over had been completed. After the war when Poland reassumed control of these areas, it introduced a uniform forest code throughout all its territory. It was the only newly formed state which did so.⁽¹³⁾ General forestry laws were passed in 1924 and 1936.⁽¹⁴⁾ The latter liberalized the forestry codes, decentralizing the forestry administration somewhat and separating its budget from the state budget. The result were very good. Reforestation and construction progressed rapidly and forestry officials received more freedom of action and more responsibility.
- (e) Polish forestry had long had a more adequate supply of literature than the Lithuanians had. The forestry magazine "Sylvan" was published in Lvov from 1888-1939, and there were several other professional publications from 1919-1939, some of which were of a high professional level. From 1919-39, about 1216 graduate theses and 32 senior research works were published.⁽¹⁵⁾
- (f) The forestry division of the agricultural college at Pulawy, established in 1869, had done some applied research in Polish state forests and published some research works.⁽¹⁶⁾ After 1924, the work began again (after being interrupted by World War I), and in 1934 a regular research institution was set-up. From 1934-1939 this institution published 32 useful books on forestry.⁽¹⁷⁾ The several forestry colleges did parallel research and the Poles Paczoski, Sokolowski, Tyszkiewicz, and Szafer, did work of sufficient merit to win recognition in western Europe. In general, Polish forestry was more dynamic, intensive and aggressive than Lithuanian forestry.

3. Forest Planning and Conservation in Vilno

- (a) All state and larger private forests of the Vilno area were operated under regular work plans. The plans operated well in the state forests but failed in the private forests because the owners were forced by economic necessity to find excuses to cut their timber. Thus in 1939, the state forests were in fairly good condition, except for small areas which were devastated during the brief Russian occupation of 1939, but the private forests were in bad condition. The Vilno peasant forests were no better than those in Lithuania. A forest preservation law, similar to the one in Lithuania, applied to the state and larger private forests. The forestry act of 1936 provided funds for purchasing devastated areas and reforesting them. The administration received so many offers of plots for sale that it was unable to buy them all.
- (b) Timber thefts, which broke out at any sign of a weakness in the regime, were suppressed by a tightly controlled, expensive system employing numerous guards. The pressure on the forests was complicated by overpopulation of a poor area whose forests were sparse and light anyway. Every person in the rural areas depended on the forests for some part of his living, legally or otherwise.
- (c) Forest fires were a regular occurrence and caused great damage because the forests were mainly pine. One of the reasons for the high number of guards was the fire danger. Grazing in the forests was always allowed because of the poverty of the native population and it was difficult to keep the animals away from the young tree stands. Grazing also increased the fire hazard.
- (d) The campaign against insects was more progressive than it was in Lithuania. Every autumn each forest ranger was obligated to search his range for signs of harmful insects. When danger existed, special parties were sent to fight it. Diseased trees were cut down. Wide research and special cutting was used to eliminate the fungi Trametes Pini and Agaricus Meleus.

4. Exploitation of the Vilno Forests

- (a) The Vilno forests had normally been subjected to clear cutting but selective cutting was employed to remove dead timber and in healthy mature stands to encourage natural reforestation. All cutting was done as the result of workplans. The forests were regularly cleaned and thinned. From 1936-39, 280,000 festmeters of structural timber and 20,000 of fuel wood were cut annually in the whole Vilno area (not the smaller portion taken over by Lithuania). Of this amount, cleaning on 1,835 hectares produced 2,694 festmeters of structural wood and 6,650 of fuel wood, and thinning on 8,392 hectares produced 87,436 festmeters of structural wood and 10,287 of wood suitable for other, minor purposes.⁽¹⁸⁾ While overcutting was the rule, it was not employed to the same extent as in Lithuania. After Lithuania took over the Vilno Area, the Lithuanians exploited the Vilno forests to a greater degree than their own, because the Vilno forests contained more mature timber than the Lithuanian forests did.
- (b) The entire operation, logging, sale, etc. in the Vilno state forests had been in charge of the state as a result of the 1936 forestry act. Wood was not sold at the stump in the state forests, only in the private forests. All timber was sold at public auction. None was made available for state institutions without charge. There was only one price list and the price was set low.
- (c) State forests were divided into six zones according to their accessibility to transportation or distance from market. The first zone was close to a city, floating river, or railroad; the 6th zone was located farther than 30 km from one of these features. Prices varied as seen below. One festmeter of pine timber of the third quality class (there were 5 classes) with a mean diameter of 25-29 cm cost:

Zone 1 - 13 zlotys
 " 2 - 12 "
 " 3 - 12 "
 " 4 - 11 "
 " 5 - 10 "
 " 6 - 9 "

Lithuanian prices for the same timber were approximately twice as much.

5. Reforestation in the Vilno Area(19)

The Polish forestry directory was greatly interested in reforestation. Special mature stands (primarily pine, but also oak, spruce and some deciduous trees) producing the best seeds were selected and protected.(20) The following was accomplished from 1936-1939:

	Total Hectares				Costs	
	Seeded	Planted	Naturally Reforested	Filled In	Total	Zlotys
1936-37	274.06	1,347.90	126.65	1,747.61	3156.37	197,677
1937-38	237.33	1,336.67	117.01	1,309.27	3000.28	207,581
1938-39	291.79	1,465.73	55.28	1,019.52	2832.32	225,461
Total	803.18	4,150.30	297.94	3,746.55	8997.97	630,719

The percentage of area naturally reforested was remarkably low but this is typical of pine forests under clear cutting practices. Artificial reforestation progressed well. Costs per hectare for seeding were 56 zlotys, for planting 52 zlotys, and for filling in (secondary planting) 42 zlotys. Lithuanian expenses for artificial reforestation were much lower, but results were much worse. The Poles used only native trees in their reforestation efforts. There were numerous nurseries and seed production facilities and reforestation was done on an intensive basis.

6. Investments in the Vilno Forests

The condition of roads and bridges in the Polish forest areas was far below that of those in Lithuania. Most of the bridges were wooden. The plans prepared for the Polish forests, however, were more realistic than those for the Lithuanian forests. They did not overestimate the yields and they brought reasonably good results. Much more was spent by the Poles than the Lithuanians on housing for forestry personnel. After 1936, all Polish forestry expenditures increased. Heavy investments from 1936-1938 led the way on a program which was designed to continue through 1946 and restore the state forest to a condition wherein they would yield a "normal" forest crop.(21) It was a healthy program and should have produced good results.

7. Private Forests in the Vilno Area

The private forest economy in Poland was much like that in Lithuania. The private holdings were declining in size and the forests were badly depleted. The owners were eager to sell their forests, but the only willing buyer was the state which paid very little. After funds for purchase were made available in 1936, the land parcels offered for sale were so numerous that the state could set its own terms. The timber in the smaller plots was of little use except as fuel. In general, the private forests reforested well naturally from the sprouts.

8. The Wood Economy of the Vilno Area

- (a) Lithuania was able to cut 280,000 festmeters of coarse (over 5 cm in diameter) material and 20,000 festmeters of small (under 5 cm) material per year from the state forests in the Vilno area it annexed. In addition, it cut 150,000 festmeters of timber in the expropriated private forest areas. This, plus the additional production of the tracts remaining in private hands, totalled a maximum 500,000 festmeters per year, worth 5,000,000 litas. (22)
- (b) The people of the Vilno area annexed by Lithuania were extremely poor because of the overpopulation (425,000 on 6,655 sq km - 64 per sq km), poor soil, and lack of industry. Their living standard was much lower than that in Lithuania. Wood was in great demand and substitutes were scarce. Vilno city annually used 50,000 metric tons and all industry in the whole Vilno area, 15,000 tons of coal for fuel, plus 75,505 tons of fuel wood. (23) The demand for fuel wood was not less than two festmeters per person per year. (24) The city of Vilno alone needed 335,000 festmeters of fuel wood each year. The country people (735,000) required approximately 500,000 festmeters, a total of 835,000 festmeters per year. In addition, the wood industry needed 250,000 festmeters of structural wood, a grand total of 1,000,000 festmeters per year. The area needed, in other words, twice as much wood as it produced. The shortage, especially during World War II, was severe.

9. The Wood Industry

- (a) The Vilno wood industry was always more ^{highly} developed than the Lithuanian wood industry. One reason for this was that its timber supply was more valuable. In 1937, the entire Vilno area had the following industry:

Type	No	Workers	Annual Workdays	Average Gross Income	- Zlotys	Total Annual Budget Zlotys
Paper Mills	9	863	250,300	580,200	145,600	4,281,200
Paper Mfg. Shops	6	246	60,400	507,000	85,800	910,200
Total	15	1109	310,800	1,088,000	231,400	5,191,400
Sawmills	59	913	231,200	669,600	134,500	5,366,700
Plywood	2	567	159,000	390,600	60,500	2,372,000
Veneer & Furniture	2	25	5,800	25,100	-	- 132,500
Total	63	1626	425,400	1,162,100	209,000	8,236,400

- (b) In the same year, the whole Vilno wood industry consumed:

Type	No	Consumption		Value of the Consumption
		Tons	Festmeters	
<u>Chemical Industry</u>				
Charcoal	5	473	1419	40,000
Tar		218	2180	29,000
Turpentine		76	760	35,000
Total	5	767	4359	104,000

Type	No	Consumption		Value of the Consumption
		Tons	Festmeters	
<u>Paper Industry</u>				
Paper Mills & Crdb.	9	9633	25,046	3,616,000
Paper Mfg. Shop	6	1591	4,137	571,000
Total	15	10,952	29,183	4,171,000
<u>Sawmills and Container Mfg Shops</u>				
	163		219,607	4,604,000
<u>Wood Fuel Consumers</u>				
	517	75,505	151,010	1,510,000
Grand Total			404,159	10,989,000

- (c) In 1937, the 50 sawmills in the whole Vilno area consumed 219,607 festmeters of raw timber valued at 4,604,000 zlotys and produced 141,252 festmeters of manufactured lumber (64%) valued at 7,803,000 zlotys. (25)
The lumber produced was:
Beams and battens - 31,678 festmeters 1,784,000 zlotys
Boards - 102,805 " 5,608,000 "
Planks - 6,634 " 398,200 "
- (d) The 6,655 sq km of the Vilno area given to Lithuania in 1939 included most of the Vilno wood industry, 90% (55 enterprises with 1,016 employees) of which was located in the city of Vilno. Lithuania also acquired 67 other small enterprises in the countryside with maximum consumption capacity of 181,000 festmeters. (26)
- (e) The Vilno area had had a very active wood industry even in 1918. (27) By 1939, however, most of the saw mills (in particular) needed essential renovation and repair. There were nine sawmills in Vilno city with 18 saw frames. Seven of the mills had planing shops, each one had a circular saw and one had a modern carpenter shop. All of the mills were located on the banks of the Vilija River and received raw timber from rafts on the river. Most of them had mechanical handling facilities to handle the timber. Some had railroad sidings as well. The nine consumed 54,000 festmeters in 1939 but had a capacity of 130-140,000 festmeters. The other 40 mills had a capacity of 180-200,000 festmeters. All Vilno production was for home consumption. There was no export trade because Gdynia, the nearest Polish port was too far away.
- (f) The wood industry in the whole Vilno area was powered as follows in 1936:

Type	No	Mechanical	Steam	Water	Electricity
--		NO	No Hp	No Hp	No Hp
Paper Industry	14	14	10 930	14 4055	3 620
Wood Industry	57	48	52 2535	6 395	37 224
Sawmills Only	44	41	42 2082	4 114	- 2196

(28)
The paper industry was run by water power but had some steam power and electricity too. The wood industry was largely run by steam power with electricity of importance, particularly in the saw mills. Most of the Polish wood industries were privately owned, but after 1936, state enterprises

were established in competition. In the Vilno area a state sawmill was set-up in Jezioro but it was not included in the area annexed by Lithuania.

(g) Wood industry workers in Vilno city had been paid (daily in zlotys):

<u>Worker</u>	<u>1930</u>	<u>1933</u>	<u>1937</u>
Carpenter	7.98	4.04	3.75
Black Smith	5.00	4.04	3.32
Sawmill Worker (Experienced)	8.20	5.46	5.52
Sawmill Worker (Inexperienced)	5.15	3.05	3.22
Timber Hauler	6.18	3.93	4.00

The salaries were comparable to those being paid in Lithuania (in Lita).

10. Commerce in the Vilno Area

- (a) The commercial system was similar to that in Lithuania. The state forestry directory was the largest merchant. Private timber and lumber traders included forest owners, industrial enterprises (which maintained large storage yards), and dealers in fuel wood (most located in Vilno city). In 1940 when the Soviets took over Lithuania, they nationalized 16 separate fuel and timber fuel wood enterprises which collectively delivered 155,000 festmeters of fuel wood annually to Vilno City.⁽²⁹⁾ In addition to private fuel wood deliveries the state itself delivered huge quantities of fuel to state offices and institutions. Fuel prices averaged 10-15 zlotys per festmeter in 1939.

C. Status of Lithuanian Forestry in 1940

1. The Situation in Brief

- (a) The loss of the important Klaipeda wood industry and port dealt a severe blow to Lithuanian forestry and made it largely dependent upon Germany. The promising wood export trade reverted to the status of the pre-World War I days. While the Germans allowed a free zone in Klaipeda for Lithuanian exports, other restrictions made its use impossible.
- (b) The political situation was very insecure. Soviet troops were garrisoned in Lithuania, capable of seizing the country at any time, but the totalitarian nationalist government had been mellowed somewhat by the establishment of a coalition cabinet. A strong campaign was begun in the Vilno area to counter Polish influences, and Lithuanian policies were introduced.
- (c) The economic situation was favorable. The budget was balanced as a result of a large pre war trade which was built up with the USSR, Germany and England. The loss of the Klaipeda population was countered by the addition of Vilno and Lithuania had 3,283,000 persons living on 65,197 sq km (50 per sq km).

2. The Forest Economy

- (a) Forestry and land use legislation remained conservative and unchanged. Over-cutting continued in the state forests. In most areas, ripe timber was scarce and in some places there was none worth harvesting. The Vilno state forests were somewhat better, and some ripe timber remained. Private forests in that area were severely damaged, however.
- (b) In all of Lithuania, there were 996,598 hectares of forest area, divided as follows:

Pure Forest	803,206 hectares,	80.6%
Cut-over Strips	45,587 "	4.6%
Other non-Forested Areas	38,250 "	3.8%

Meadows	17,382 hectares	1.7%
Farmland	14,642 "	1.5%
Swamps	67,356 "	6.8%
Roads & Lakes	10,175 "	<u>1.0%</u>
		100%

The forestry department administered an area equal to 16.7% of Lithuanian territory. 15% of this total Lithuanian territory was pure forest. (30)
The pure forest areas including the cut-over strips and other non-forested areas were divided as follows:

Pine Forests	367,294 hectares
Spruce Forests	278,955 "
Birch Forests	97,553 "
Aspen Forests	58,039 "
Northern Alder Forests	53,455 "
Hoary Alder Forests	11,164 "
Oak Forests	1,569 "
Other Forests	9,114 "

By age, the forests were divided:

<u>Forest</u>	<u>Young</u>	<u>Middle Age</u>	<u>Ripe</u>
Pine	52%	33.4%	14.6%
Spruce	35.3	31.1	33.6
Deciduous	41.3	31.2	27.5

- (c) The large areas of soft deciduous forest indicated how unsuccessful the reforestation program had been. They were only temporary, and would ordinarily be succeeded in 10-20 years by the original evergreen stands. The interim unproductive period, however, was a severe blow to the forest economy and to the principle of sustained yield. The situation was much worse than official sources indicated.
- (d) Lithuanian geographic sub-divisions were altered somewhat after the annexation of Vilno as shown in the following chart:

Lithuanian Counties	Prior to Oct '39			Following Oct '39			Difference in Area	
	County Area Km 2	Forest Area Hectares	%	County Area Km 2	Forest Area Hectares	%	County Area Km 2	Forest Area Hectares
Alytus	227,300	46,797	16.8	316,600	59,329	18.7	✓ 39,300	✓ 12,532
Birzu	272,400	39,642	14.5	272,400	37,417	13.7	-	- 2,225
Kaunas	264,600	54,247	20.5	228,400	53,398	23.4	- 36,200	- 849
Kedainu	242,900	38,972	16.0	242,900	38,224	15.7	-	- 749
Kretinga	263,300	45,714	17.3	263,300	39,437	15.0	-	- 6,277
Marijampole	227,200	51,733	22.7	227,200	51,034	22.5	-	- 699
Mazeikiu	196,000	26,153	13.3	196,000	25,415	13.0	-	- 738
Panevezys	438,200	71,411	16.2	438,200	68,247	15.6	-	- 3,164
Raseiniu	304,800	46,739	15.3	304,800	48,091	15.8	-	✓ 1,352
Rokiskio	216,500	28,428	13.1	216,500	26,646	12.3	-	- 1,782
Seinu	124,900	23,663	18.9	124,900	25,012	20.0	-	✓ 1,349
Sakiu	176,000	37,484	21.3	176,000	35,385	20.1	-	- 2,099
Siauliai	604,200	105,114	17.4	604,200	101,887	16.9	-	- 3,227
Svencioniu	-	-	-	158,900	46,923	29.5	✓ 158,900	✓ 46,923
Taurages	326,600	58,610	17.9	326,600	58,080	17.8	-	- 530
Telsiai	262,100	40,182	15.3	262,100	38,621	14.7	-	- 1,561
Trakai	214,100	48,177	22.5	367,100	96,610	26.3	✓ 153,000	✓ 48,433
Ukmerges	306,400	49,383	16.1	306,400	44,902	14.7	-	- 4,480
Utena	301,900	45,697	15.1	251,900	37,458	14.9	- 50,000	- 8,239
Vilkaviskis	131,600	7,049	5.3	131,600	7,219	5.5	-	✓ 170
Vilno	-	-	-	314,000	65,233	20.8	✓ 314,000	✓ 65,233
Zarasai	131,200	28,538	21.7	183,100	24,087	13.2	✓ 51,900	- 4,451
Total	5,282,200	893,733	16.9	5,973,100	1,028,655	17.2	✓ 630,900	✓ 134,932

- (e) The total volume of all the Lithuanian timber stock during this period was estimated to be 119,750,000 festmeters, an average of 135 festmeters per hectare of forest. Mean annual increment was estimated at 3,500,000 festmeters or 3.5%.(32) Annual cutting rates were set as follows:

<u>State Forest</u>			
Pine	1119 hectares	-	279,700 festmeters
Spruce	2763 "	-	828,900 "
Birch	778 "	-	155,600 "
Aspen	566 "	-	118,800 "
N. Alder	551 "	-	110,200 "
H. Alder	262 "	-	34,000 "
Oak	45 "	-	18,900 "
Ash	122 "	-	24,400 "
<u>Vilno Forests</u>			260,000 "
<u>Private Forests</u>			77,000 "
<u>Thinning and Clearing</u>			887,500 "
Total			2,785,000 "

Maturity was set at:

Soft Deciduous Forests	9%	-	60 years
Spruce	43%	-	80 "
Pine	27%	-	100 "
Oak and Pine	19%	-	120 "
Oak	2%	-	160 "

- (f) There was a shortage of all professional forestry manpower (particularly college educated men). The annexation of Vilno made the shortage worse and many lower rank persons were elevated to higher positions. In 1940 there were 57 forest master districts (16,000 hectare average), 413 forest ranger districts, (2,246 hectare average), and 2,246 guard districts (472 hectare average).(33) In 1944, 22 of the 57 forest masters were not college educated. All the forests had work plans. Those in the private forests were simplified. Over-cutting, however, had brought the forests to the point of exhaustion. Ripewood was scarce and available only in remote areas (Zarasai, Utena) and in the Vilno area. Increasing demand caused a rising dependence upon cleaning, thinning and stump wood. Natural reforestation was unsatisfactory and produced the wrong types of new growth. Artificial reforestation was negligible and had just started to increase prior to the war.
- (g) There were large investments in forest roads and bridges under a general policy of preparing them for possible war. This helped forestry very little, however, because of the shortage of timber. Additional expense was incurred in revising forest work plans. Investments in reforestation, research, and buildings continued small and inadequate. State policy continued to be exploitation of the forests in order to balance the state budget.

3. The Wood Economy

- (a) Production of wood products ran far behind demand, particularly after the annexation of Vilno. As early ~~25~~ 1937, public wood auctions were sometimes stormy and even violent. The amount of wood available annually for each Lithuanian was lower than for any of the countries surrounding Lithuania. In 1937 the wood industries consumed 380,039 festmeters, but in 1939 it was only 84,395 festmeters and in 1940 only 120-130,000. Peat production, supported by the state was on the rise.
- (b) Most of Lithuania's vital wood industry was lost with Klaipeda. Rough timber (pulp wood and mine timber) was the primary wood export (300,000 festmeters in 1939-40) and the few remaining industries produced only for internal consumption. While prices and demand were up, private industry was unwilling to risk its own capital to increase its production because of the uncertain international situation, and preferred to work on state delivered timber on a commission basis.
- (c) The state continued its virtual monopoly of the wood trade, along with a few small private merchants. The latter dealt largely in the small quantities of fuel wood available from clearing and thinning operations. There were 16 private traders in Kaunas and the same number in Vilno. There were also a few in Taurage, Trakai, Siauliai, and other county seats. (34)
- (d) Labor continued to be abundant and cheap. A reservoir of unemployed labor was available in the cities. They were a politically troublesome group.

Footnotes - Chapter IV

- (1) "Tauta Budi", 1954, p 113
- (2) Skerys, 1948
- (3) Statistikos
- (4) Ibid
- (5) Ibid
- (6) Ibid, p 20
- (7) Jan Kauskas, "Musu Girios", 1940, p 71, 75
- (8) Vilcinskas, "Musu Girios", 1939, p 483
- (9) Ibid, p 557
- (10) Bilder von Litauen, 1917, p 77
- (11) "Kalendarz Lesny" 1937, p 45, 53
- (12) Ibid
- (13) Kalendarz Lesny p 26
- (14) Ibid, p 11, 17
- (15) Miklaszewski: Jan, "Praca Naukowa", 1938
- (16) Surozh, 1908, II/142
- (17) Miklaszowski, 1938, p 17
- (18) Vilcinskas, "Musu Girios", 1939, p 559
- (19) Ibid
- (20) Author
- (21) Ibid
- (22) Vilcinskas, "Musu Girios", 1939, No 10, p 483
- (23) "Statistikos Biulitenis", No 10 - 192, 1939, p 27
- (24) Author
- (25) "Statistikos Biulitenis" No - 192, p 24-25
- (26) Gureckas & Vasiliaskas, "Medzio Promone Lietuvoj", 1953, p 17-18;
Skerep, 1947, p 40-45
- (27) Gureckas & Vasilianskas, p 27-28
- (28) "Statistikos Biulitenis", p 27
- (29) "Musu Girios", 1939, p 560
- (30) "Mishkininku Kalendorius", 1941
- (31) Ibid
- (32) Author
- (33) "Mishkininku Kalendorius", 1941
- (34) "Lietuviu Archyvas", 1952, p 269